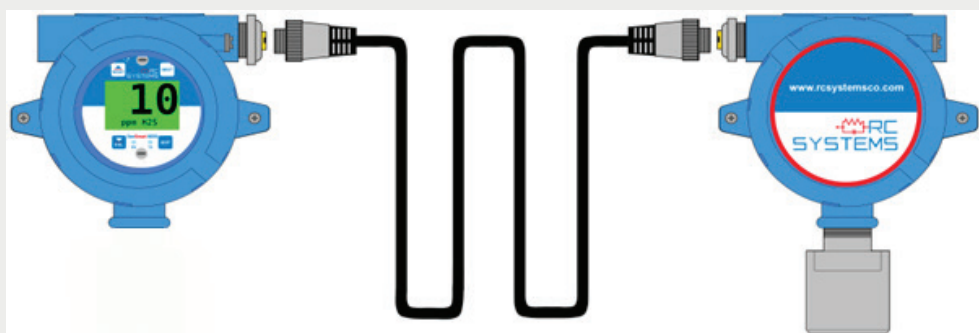


Remote Sensor *SenSmart 5000*

Installation Guide



Flammable & Toxic Gas Detectors
Smart Alarm Controllers
Fire & Gas System Engineering
Technical Service & Support



Warning: Read & understand contents of this manual prior to operation. Failure to do so could result in serious injury or death.

GETTING STARTED

Gas Detector Installation and Power-up

1

What you need (not included)

1. Small Flathead Screwdriver
2. Phillips Screwdriver (for poly enclosure)
3. Wire (*RC Systems recommends: Belden 3124A Multi-Conductor wire or equivalent.*)

2

Installation of Gas Detector

Remove windowed lid from unit.

1. AL Enclosure -
 - a. Loosen lid set screw
 - b. Rotate lid clockwise and remove
 - c. Loosen thumb screws on display to remove display and access terminals
2. PY Enclosure -
 - a. Unscrew lid screws (4) to access terminals.

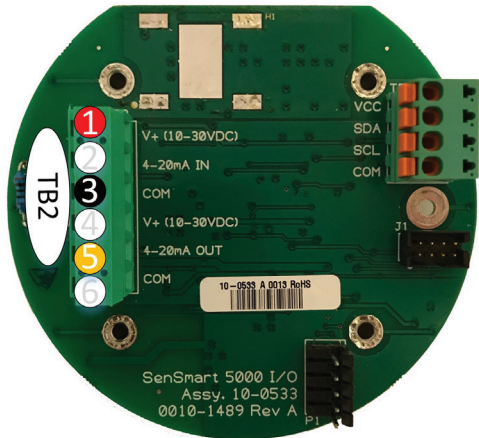
1. Connect 10-30VDC power lead to TB2.1
(See Figure 1)
2. Connect Common lead to TB2.3 (See Figure 1)
3. Connect signal lead to TB2.5. (4-20mA Out)
(if required)(See Figure 1)

Figure 1 - SenSmart 5000 wiring

**TB2.① - 10 to 30VDC
Positive (+)**

**TB2.③ - 10 to 30VDC
Common (-)**

TB2.⑤ - 4-20mA Output



REMOTE SENSOR INSTALLATION

SenSmart 5000 Wiring Instructions

4

Follow the steps below to first connect the SenSmart 5000 I/O Board to the Remote Sensor:

1. Verify SenSmart 5000 is powered off.
2. Remove lid from SenSmart 5000 and remote sensor
3. Connect (24V) TB.1.1 on the Remote sensor board to the 10-30VDC power supply on SenSmart 5000 I/O board (TB2.1). (Either double up wires on TB2.1 or connect to the shared power supply (TB2.1). **(Figure 2)**
4. Connect 10-30VDC Ground (GND) (TB1.2) wires to power terminal COM (TB2.2). **(Figure 2)**
5. Connect 10-30VDC Ground (GND) (TB1.2) wires to power terminal COM (TB2.3). **(Figure 2)**
6. Connect Modbus Terminal A (TB1.3) from the remote sensor board to terminal A1 on the Relay Board (TB1.1). **(Figure 2)**
7. Connect Modbus Terminal B (TB1.4) from the remote sensor board to terminal B1 on the Relay Board (TB1.2). **(Figure 2)**

REMOTE SENSOR INSTALLATION

5

Connecting to the Remote Sensor

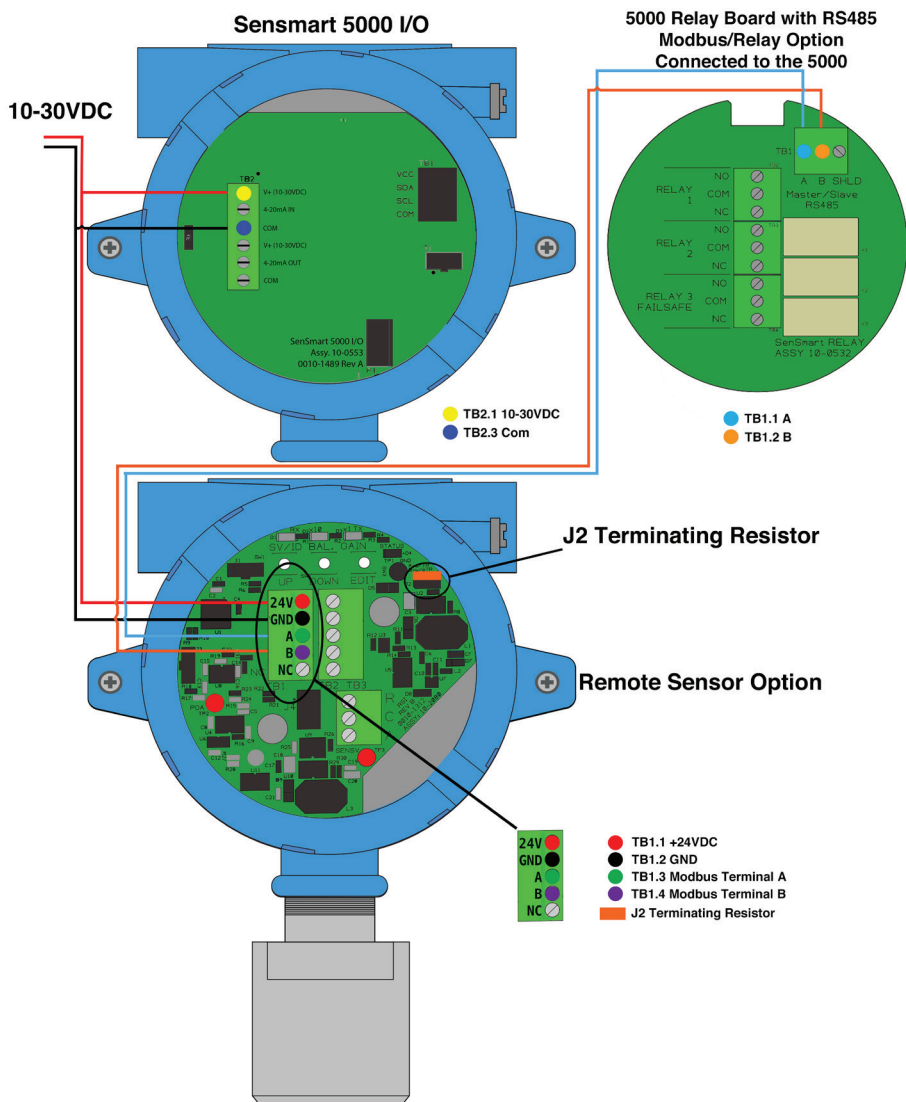
Follow the steps below to connect the RS485 Modbus/Relay Option board to the Remote Sensor:

1. Locate the 10-0532 relay/Modbus board or 10-0531 Modbus board. *(This board is “piggybacked” behind the 10-0387 SenSmart 5000 CPU/Display Board.)*
2. Connect Modbus Terminal A (TB1.3) from the remote sensor board to terminal A on Modbus Board (TB1.1). **(Figure 2)**
3. Connect Modbus Terminal B (TB1.4) from the remote sensor board to terminal B on Modbus Board (TB1.B). **(Figure 2)**

Terminating Resistors:

The terminating resistor (J2) jumper should be placed in position A on the remote sensor.

Figure 2 - Remote Sensor Power Up



CONFIGURATION

Configuration Instructions

6

Important:

When configuring your remote sensor ensure both the sensor transmitter and the 10-2080 Remote Sensor Option are readily accessible, as some steps require actions to be performed in a timely manner.

7

Entering Configuration Mode:

Transmitter (SenSmart 5000):

1. Swipe Edit on the transmitter using a magnet.
2. Swipe Down until Comm Settings is highlighted.
3. Swipe Edit to enter the Comm Settings menu.
4. Swipe Edit to enter the Comm 1 Settings menu.
5. Swipe Edit until display shows Remote Sensor.
6. Swipe Down to highlight Board Setup.
7. Swipe Edit to enter Search mode.

Remote Sensor:

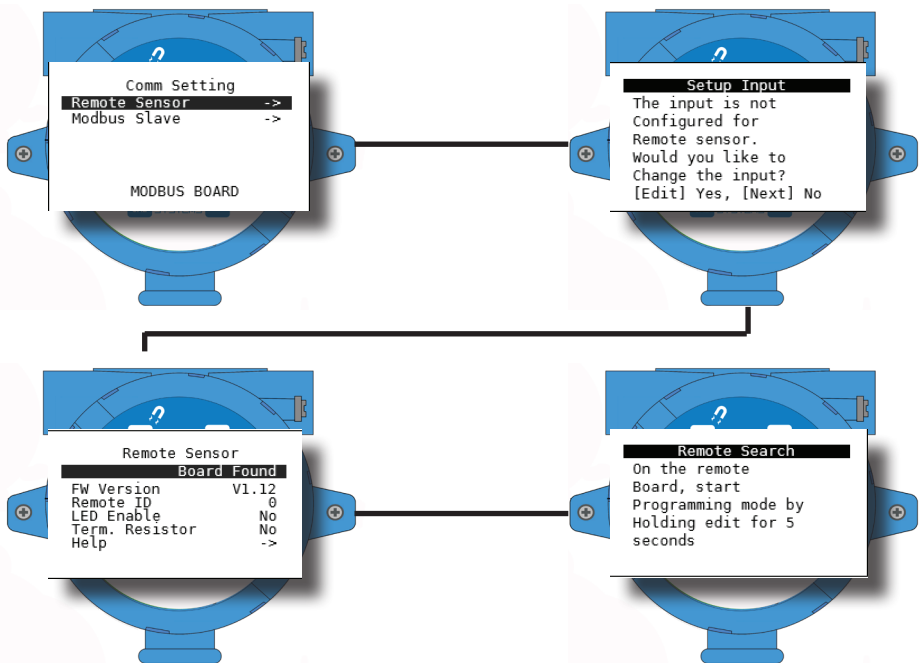
Hold Edit Button on 10-2080 Remote Sensor Option Board until the Board Setup Menu is displayed on the transmitter LED will fade in and out on the remote board. **(Figure 2)**

Remote Option Board Configuration: (Figure 2)

Transmitter (SenSmart 5000):

1. Highlight Set Remote ID on transmitter.
2. Swipe Edit to Set Remote ID
3. Swipe Edit to save Remote ID settings.
4. Highlight Exit Program Mode.
5. Swipe Edit to exit program mode.

Figure 3- Configuration



COMPLETE SETUP

1

Finalize Installation

1. Replace display and tighten thumb screws.
2. Replace enclosure lid.
3. Apply power to unit and observe power up screen.
4. After the warm up period, observe gas type and gas concentration on screen.
5. Using the magnet wand, swipe Down Key on the display. Follow on-screen prompts to perform calibration.
6. Swipe the Edit key to enter Cal Mode.
7. Apply a clean Zero Gas , using the Calibration Cup or be sure there is no background target gas in the monitored area. After the reading is stable, swipe the Edit key to set the Zero Calibration. To skip the Zero calibration, and go to the Span calibration, swipe the Next key. Once a message that the Zero calibration was completed successfully has been displayed, proceed to the next step.
8. Apply the correct, as indicated, span gas. After the reading is stable, swipe the Edit key to set the Span Calibration. To skip the Span Calibration, swipe the Next key. When a message that the Span Calibration was completed successfully is displayed, the gas detector will exit back to the Data Display Screen.
9. Remove the calibration gas. Once the Cal Purge Delay has expired, normal alarm and relay functionality will be restored.



R.C. Systems provides 24/7 superior technical support from experts right here in our local facility.

If you are in need of any assistance during the setup of this product, you may contact our main office and your call will be directed appropriately.

At R.C. Systems we are proud to supply quality products and are happy to help if you have any questions or concerns.

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